B568 ✓

SOURCE: CERCLIS

US EPA, SUPERFUND PROGRAM
LONG-TERM HUMAN HEALTH PROTECTION WORKSHEET

RUN TIME: 4/29/09 4:08 PM

Site Name: **MATTHIESSEN AND HEGELER ZINC COMPANY** EPA ID: **IL0000064782**

NPL Status: **Currently on the Final NPL**

Region: **05** Section: **SFD/RRB#1/RRS3: 090594400** Primary RPM: **COLLIER, DEMAREE**

HE Survey Status: **Insufficient Data to Determine Human Exposure Control Status**

HE Estimated Control Date: **9/30/2025** LTHHP Estimated Control Date: **9/30/2025** HE Last Review Date: **5/23/2008** RPM Certified: **Yes**

Justification Type: _____ Justification Date: _____

Justification Text: If site status has changed, please enter a justification as to why the status has changed:

~~Unknown - just getting ready to start the RI~~ (status not changed)

Definition: The Long-Term Human Health Protection EI documents the progress achieved towards providing long-term human health protection by measuring the incremental progress achieved in controlling unacceptable human exposures at a site.

Step 1: Is there sufficient known and reliable information to make an evaluation on human exposure at this site?

Answer: **No**

SDMS Number(s).

List Reference Document(s):

No → Insufficient Data to Determine Human Exposure Control Status

Yes ↓

Step 2: Have all long-term human exposure-related cleanup goals been met for the entire site?

Answer:

SDMS Number(s)

List Reference Document(s):

Yes → Long-Term Human Health Protection Achieved

No ↓

Step 3: Are there complete human exposure pathways between contaminated groundwater, soil surface water, sediment or air media and human receptors such that exposures can be reasonably expected under current conditions?

Answer:

SDMS Number(s)

List Reference Document(s):

No

Yes ↓

Step 4: Are the actual or reasonably expected human exposures associated with the complete pathways identified in Step 3 within acceptable limits under current conditions?

Answer:

SDMS Number(s)

List Reference Document(s):

No → Current Human Exposures Not Controlled

(continued on next page)

Yes ↓

(continued from previous page)

Step 5: Is the site Construction Complete, is the remedy operating as intended, and are engineering and institutional controls (if required), in place and effective?

Answer:

SDMS Number(s):

List Reference Document(s):

No → Current Human Exposures Controlled

Yes → Current Human Exposure Controlled and Protective Remedy in Place

Step 6. Are there continuing exposures at the site? Answer Yes only if EPA (or a state or PRP) has exhausted all response actions and legal authorities to prevent unacceptable human exposure, yet exposures continue due to a refusal by the property owner(s) to participate in the remedy (e.g., refusal to accept a municipal water supply hookup) AND the region wishes to exercise its discretion to classify this site as Human Exposure Under Control, consistent with the requirements laid out in the Superfund Environmental Indicators Guidance (OSWER 9285.02, March 2008, pages 4-10 and 4-11).

Answer:

Exposure Pathway Description

If Human Exposure is NOT under control, please describe the exposure pathway.

☑ Approved by Headquarters Environmental Coordinator

Unofficial

Currently, there is insufficient information to determine the site-wide Human Exposure Control status at the Matthiessen and Hegeler Zinc Company Superfund Site. The site was used for a variety of industrial activities including mining and smelting, and metals contamination of soils and nearby water bodies is expected to be the primary risk. Exposure pathways include possible trespassers on the site as well as nearby off-site residents to soil contamination, and aquatic receptors. The site is fenced except along the Vermillion River. Remedial Investigation/Feasibility Study (RI/FS) sampling began in July 2007, with a PRP conducting the work on a portion of the Site (including the Little Vermillion River) and U.S. EPA conducting the investigation on the remaining part of the Site. U.S. EPA also completed some residential soil screening around the Site for contaminants that may have migrated off-site and into residential yards. The results from this sampling event does not indicate that high levels of wide-spread contamination have migrated off-site, but supplemental sampling is needed to fill in data gaps to ensure that no areas have been missed. The full results of this residential sampling effort, along with the results from the on-site sampling and river sampling, will be used in the generation of the risk assessment report which is planned to be completed sometime in 2009.

Official

Currently, there is insufficient information to determine the site-wide Human Exposure Control status at the Matthiessen and Hegeler Zinc Company Superfund Site. The site was used for a variety of industrial activities including mining and smelting, and metals contamination of soils and nearby water bodies is expected to be the primary risk. Exposure pathways include possible trespassers on the site as well as nearby off-site residents to soil contamination, and aquatic receptors. The site is fenced except along the Vermillion River. Remedial Investigation/Feasibility Study (RI/FS) sampling began in July 2007, with a PRP conducting the work on a portion of the Site (including the Little Vermillion River) and U.S. EPA conducting the investigation on the remaining part of the Site. U.S. EPA also completed some residential soil screening around the Site for contaminants that may have migrated off-site and into residential yards. The results from this sampling event does not indicate that high levels of wide-spread contamination have migrated off-site, but supplemental sampling is needed to fill in data gaps to ensure that no areas have been missed. The full results of this residential sampling effort, along with the results from the on-site sampling and river sampling, will be used in the generation of the risk assessment report which is planned to be completed sometime in 2009.

Approvals (Initial and Date)

RPM	Section Chief	Technical Review	Branch Chief	IMC	Data Entry
7-1-09	RLF 7/7/09	8/17/10			9/11/09

SEE REVISED PARAGRAPH, JULY 2009

RUN DATE: 10/30/08 14:06
SOURCE: CERCLIS

Superfund Migration of Contaminated Ground Water Under Control Worksheet

B568 CONFIDENTIAL FOR INTERNAL USE ONLY

Definition: Is the migration of contaminated ground water being controlled through engineered or natural processes?

Region: 05 **Section:** _____ **Primary RPM:** DEMAREE COLLIER

Site Name: MATTHIESSEN AND HEGELER ZINC COMPANY **EPA ID:** IL0000064782

GW Survey Status: Insufficient Data to Determine Contaminated Groundwater Migration Control Status

Justification Date: _____ **Justification Type:** _____

Estimated Under Control Date: 9/30/2025

Justification Text: If site status has changed. Please enter a justification as to why the status has changed:
Unknown - just getting ready to start the RI.

Q Does the site currently have contaminated ground water or did site conditions warrant EPA's investigation or remediation of ground water contamination in the past?

Answer: Yes

No → Stop, you do not need to complete the GM EI

Yes ↓

Insufficient Data/No ←

Step 1. Based on the most current data on the site, has all available relevant/significant information on known and reasonably suspected releases to ground water been considered in this determination?

Answer: Insufficient Data

SDMS/Control Number:

List Reference Document(s):

Yes ↓

Insufficient Data/No ←

Step 2. Is ground water known or reasonably suspected to be "contaminated" above *appropriately protective risk-based "levels" (applicable promulgated standards, as well* as other appropriate standards, guidelines, or criteria) as a result of a release from the site?

Answer:

SDMS/Control Number:

List Reference Document(s):

No → Contaminated Ground Water Migration Under Control

Yes ↓

Insufficient Data/No ←

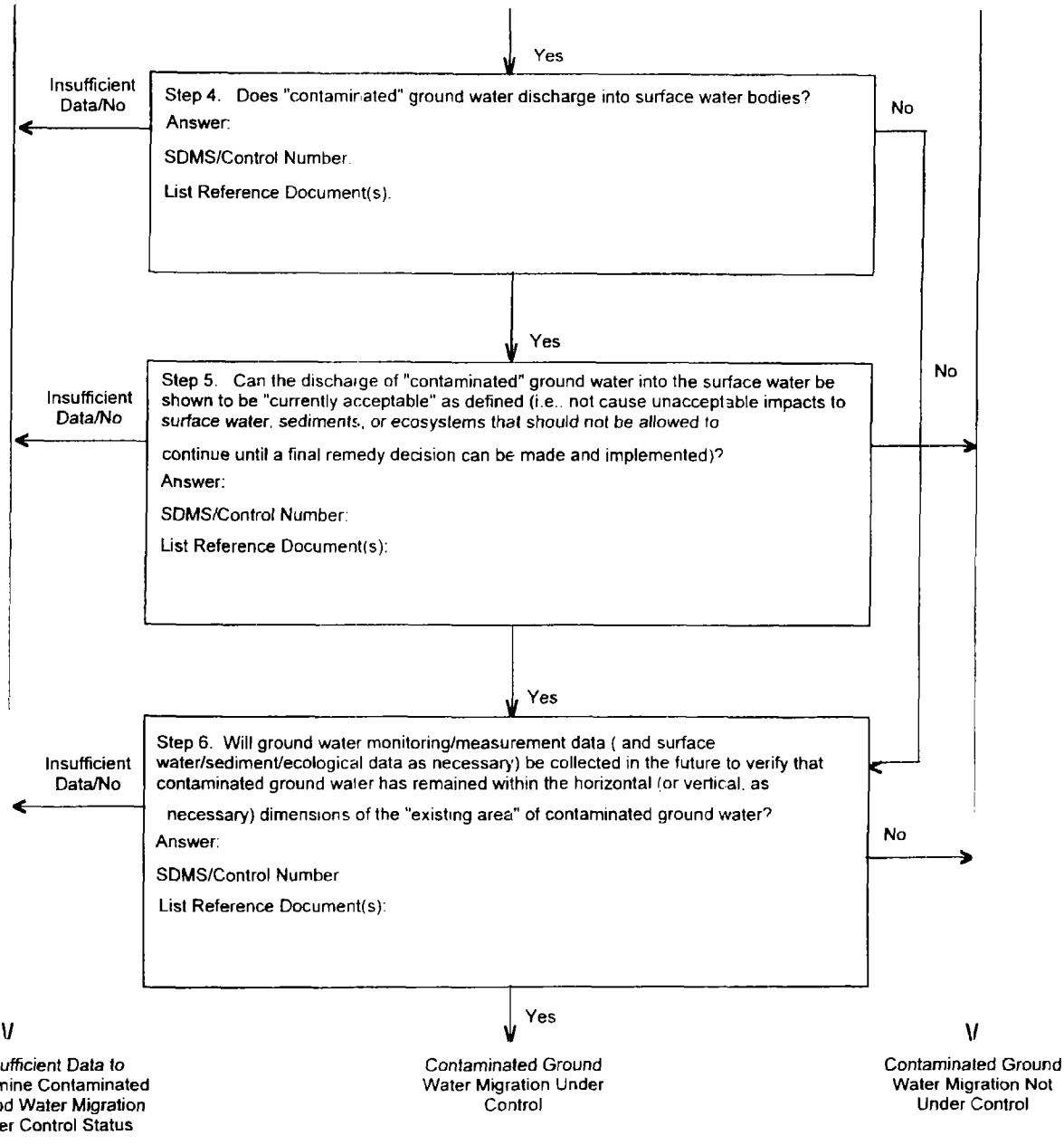
Step 3. Is the migration of contaminated ground water stabilized (such that contaminated ground water is expected to remain within "existing area of contaminated ground water") as defined by the monitoring locations designated at the time of this determination?

Answer:

SDMS/Control Number:

List Reference Document(s):

No →



Approvals (Initial and Date)

RPM	Section Chief	Technical Review	Branch Chief	IMC	Data Entry
DZ 12-23-08	MF 1/6/09	[illegible]			SJ. 5/27/05

Superfund Environmental Indicators Survey

Human Exposure Under Control & Groundwater Migration Under Control

Step 1. Site Information

Region: 5

State: IL

EPA ID: ILD000064782

Site Name: Matthiessen + Hegeler

Construction Complete: ☐ Yes ☑ No

Step 2. Human Exposure Under Control

Are all identified human exposure pathways from contamination at the site under control or below health-based levels for current land and/or groundwater use conditions? "Under control" means that adequately protective controls are in place to prevent any unacceptable human exposure under current land- and groundwater-use conditions only. This environmental indicator does not consider potential future land- or groundwater-use conditions nor ecological receptors.

☐ Yes ☑ No ☐ Insufficient Data See attached

Step 3. Contaminated Groundwater Migration Under Control

Does the site have contaminated groundwater? (In the universe of 1180 groundwater sites identified as of EOY 2000).

☑ Yes ☐ No (Go to Step 4)

Is the migration of contaminated groundwater from the site being controlled through engineered remedies or natural processes?

☐ Yes ☑ No ☐ Insufficient Data See attached

Step 4. Regional Contact Information

Completed by:

(signature) Linda Howard Jon Rokus

(print) Linda Howard

(title) EPS

(phone) 6-0810

Date 7/1/2003 7/2/2003

Supervisor:

(signature)

(print) Matthew J. Mankowski

(title) SECTION CHIEF RPS #2

(phone) (312) 886-1842

Date 7/14/03

Superfund Human Exposure Under Control Worksheet

Definition: Are all identified human exposure pathways from contamination at the site under control or below health-based levels for current land and/or groundwater use conditions? "Under control" means that adequately protective controls are in place to prevent any unacceptable human exposure under current land- and groundwater- use conditions only. This environmental indicator does not consider potential future land- or groundwater- use conditions nor ecological receptors.

Region: 5

State: IL

EPA ID: ILD000804782

Site Name: Matthiessen and Hegeler

Step 1. Based on the most current data for the site, has all available relevant/significant information on known contaminants to soil, surface water/sediments, and air at the NPL site been considered in this EI determination?
Explain Rationale: Pre Remedial Scoring, PA/SI

List Site Reference Document:

No → Insufficient Data

Yes

Step 2. Are groundwater, soil, surface water, sediments, or air media known or reasonably suspected to be "contaminated" above appropriately protective risk-based "levels" (applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from known contaminants?
Explain Rationale: Pre Remedial Scoring PA/SI

List Site Reference Document:

No → Insufficient Data

Yes

Step 3. Are there complete pathways between "contamination" and human receptors such that exposures can be reasonably expected under the current (land- and ground water-use) conditions?
Explain Rationale: Pre Remedial Scoring PA/SI

List Site Reference Document:

No → Insufficient Data

Yes

Step 4. Are the potential exposures from Step 3 within acceptable limits under current (land and ground water use) conditions (e.g., within the cancer risk range or HI<=1)?
Explain Rationale:

List Site Reference Document:

Yes → YES, Site Does Meet Definition

No → NO, Site Does Not Meet Definition

INSUFFICIENT DATA! More Information Needed To Make Determination

Superfund Migration of Contaminated Ground Water Under Control Worksheet

Definition: Is the migration of contaminated ground water from the site being controlled through engineered or natural processes?

Region: 5

State: IL

EPA ID: ILD000806182

Site Name: Matthiessen + Hegeler

Step 1. Based on the most current data on the site, has all available relevant/significant information on known and reasonably suspected releases to the ground water been considered in this determination?
Explain Rationale: Pre remedial Scoring, PA/SI
List Site Reference Document:

No → Insufficient Data

Yes ↓

Step 2. Is ground water known or reasonably suspected to be "contaminated" above appropriately protective risk-based "levels" (applicable promulgated standards, as well as other appropriate standards, guidelines, or criteria) as a result of a release from the site?
Explain Rationale: Pre remedial Scoring, PA/SI
List Site Reference Document:

No → YES, Site Does Meet Definition

Insufficient Data ←

Yes ↓

Step 3. Is the migration of contaminated ground water stabilized (such that contaminated ground water is expected to remain within "existing area of contaminated ground water") as defined by the monitoring locations designated at the time of this determination?
Explain Rationale:
List Site Reference Document:

No →

Insufficient Data ←

Yes ↓

Step 4. Does "contaminated" ground water discharge into surface water bodies?
Explain Rationale:
List Site Reference Document:

No →

Insufficient Data ←

Yes ↓

Step 5. Can the discharge of "contaminated" ground water into surface water be shown to be "currently acceptable" as defined (i.e, not cause unacceptable impacts to surface water, sediments, or ecosystems that should not be allowed to continue until a final remedy decision can be made and implemented)?
Explain Rationale:
List Site Reference Document:

No →

Insufficient Data ←

Yes ↓

Step 6. Will ground water monitoring/measurement data (and surface water/sediment/ecological data as necessary) be collected in the future to verify that contaminated ground water has remained within the horizontal (or vertical, as necessary) dimensions of the "existing area" of contaminated ground water?
Explain Rationale:
List Site Reference Document:

No →

Insufficient Data ←

Yes ↓

INSUFFICIENT DATA, More Information Needed to Make Determination

YES, Site Does Meet Definition

NO, Site Does Not Meet Definition

Superfund Environmental Indicators Survey
Long-Term Human Health Protection & Groundwater Migration Under Control

Step 1. Site Information

Region: 5

State: IL

EPA ID: ILD000064782

Site Name: Matthiessen & Hegeler Zinc Co. Site

Construction Complete: ☐ Yes ☒ No

Step 2. Long-Term Human Health Protection

Are all identified human exposure pathways from contamination at the site under control or below health-based levels for current land and/or groundwater use conditions? "Under control" means that adequately protective controls are in place to prevent any unacceptable human exposure under current land- and groundwater- use conditions only. This environmental indicator does not consider potential future land- or groundwater- use conditions nor ecological receptors.

☒ Insufficient data to determine HE

☐ Current exposures not controlled

☐ Current exposures not controlled but some human exposures control achieved

☐ Current exposures controlled

☐ Current exposures controlled and protective remedy in place

☐ Long-term human health protection achieved

Step 3. Contaminated Groundwater Migration Under Control

Does the site have contaminated groundwater? (In the universe of 1180 groundwater sites identified as of EOY 2000).

☒ Yes ☐ No (Go to Step 4)

Is the migration of contaminated groundwater from the site being controlled through engineered remedies or natural processes?

☐ Yes ☐ No ☑ Insufficient Data

Step 4. Regional Contact Information

Completed by:

(signature) Demarce Collier

(print) Demarce Collier

(title) RPM

(phone) 312-886-0214

Date 9-19-05

Supervisor:

(signature) Rebecca Frey

(print) REBECCA FREY

(title) Acting Section Chief

(phone) 312-886-4760

Date 9/19/05

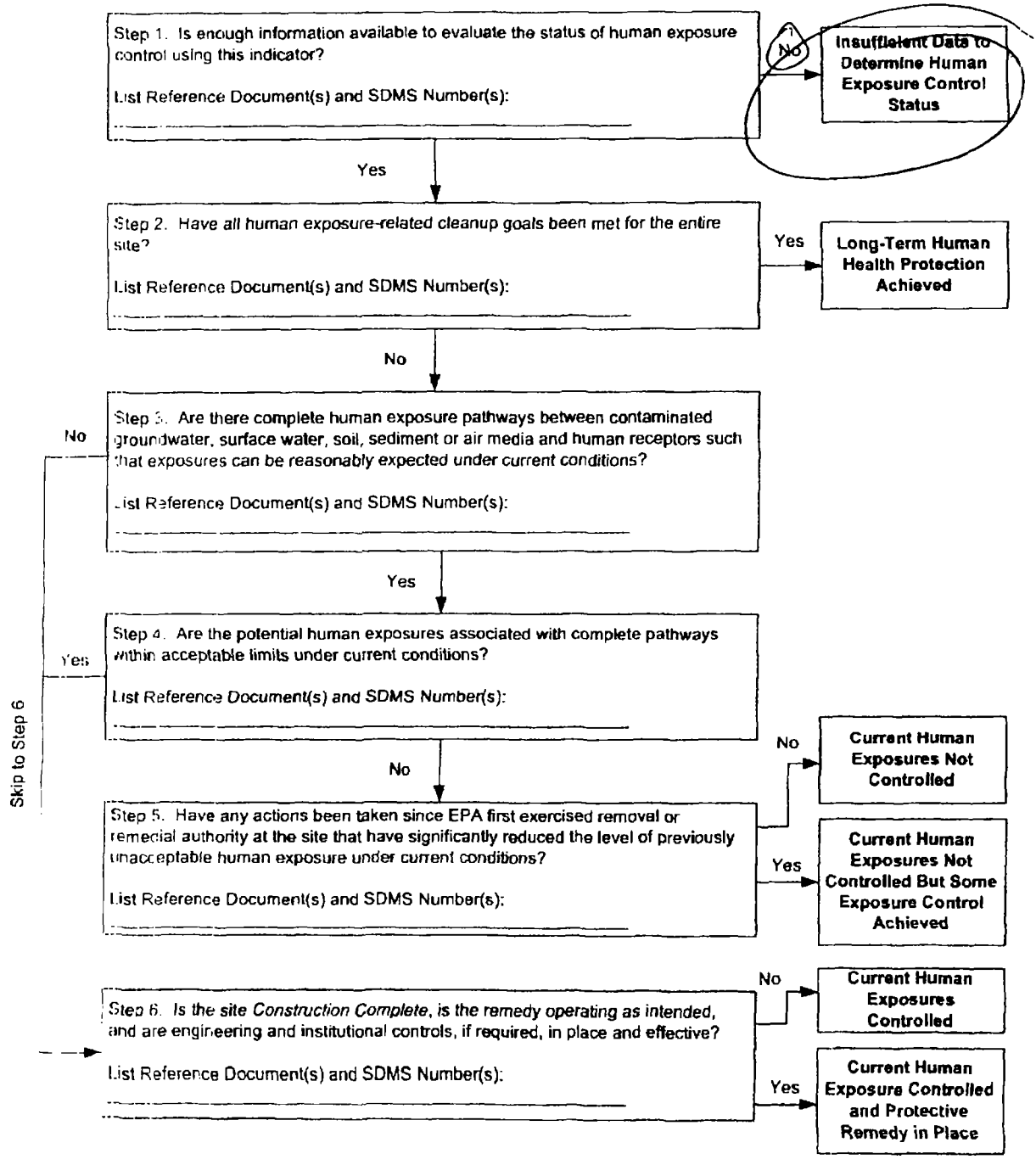
KJS 9-23-05

Region: 5
State: IL
EPA ID: ILD000064782
Site Name: Mt Zion Co. Site

Estimated Control Date: unknown - just getting ready to start RI

Superfund Long-Term Human Health Protection Worksheet

Definition: The Long-Term Human Health Protection EI documents the progress achieved towards providing long-term human health protection by measuring the incremental progress achieved in controlling unacceptable human exposures at a site.

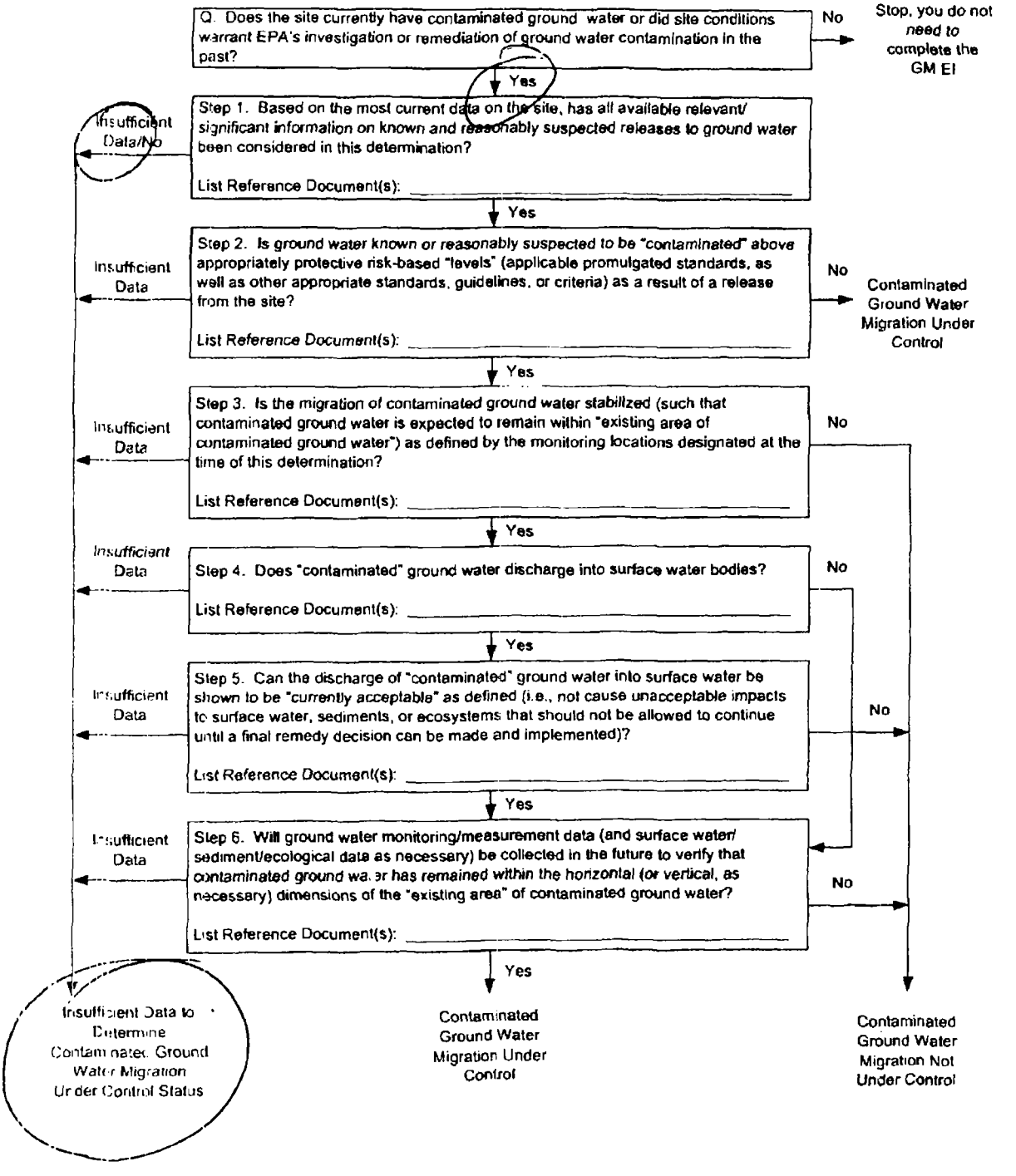


Region: 5
State: IL
EPA ID: ILD000 64782
Site Name: Mt Zinc Co Site

Estimated Control Date: unknown - just getting ready to start RI. (MF)

Superfund Migration of Contaminated Ground Water Under Control Worksheet

Definition: Is the migration of contaminated ground water being controlled through engineered or natural processes?



Dec 1

Superfund Migration of Contaminated Ground Water Under Control Worksheet

Definition: Is the migration of contaminated ground water being controlled through engineered or natural processes?

Site Name: MATTHIESSEN AND HEGELER ZINC COMPANY **EPA ID:** IL0000064782

GW Survey Status: Insufficient Data to Determine Contaminated Groundwater Migration Control Status

Estimated Under Control Date (if not under control): 9/30/2025

Justification Text: If site status has changed. Please enter a justification as to why the status has changed:
Unknown - just getting ready to start the RI.

Q. Does the site currently have contaminated ground water or did site conditions warrant EPA's investigation or remediation of ground water contamination in the past?

Answer: **Yes**

No → Stop, you do not need to complete the GM EI

Yes ↓

Step 1. Based on the most current data on the site, has all available relevant/significant information on known and reasonably suspected releases to ground water been considered in this determination?

Answer: **Insufficient Data**

List Reference Document(s):

Insufficient Data/No ←

Yes ↓

Step 2 Is ground water known or reasonably suspected to be "contaminated" above appropriately protective risk-based "levels" (applicable promulgated standards, as well as other appropriate standards, guidelines, or criteria) as a result of a release from the site?

Answer:

List Reference Document(s):

Insufficient Data/No ←

No → Contaminated Ground Water Migration Under Control

Yes ↓

Step 3. Is the migration of contaminated ground water stabilized (such that contaminated ground water is expected to remain within "existing area of contaminated ground water") as defined by the monitoring locations designated at the time of this determination?

Answer:

List Reference Document(s):

Insufficient Data/No ←

No →

Yes ↓

Step 4. Does "contaminated" ground water discharge into surface water bodies?

Answer:

List Reference Document(s):

Insufficient Data/No ←

No →

Yes ↓

Step 5. Can the discharge of "contaminated" ground water into the surface water be shown to be "currently acceptable" as defined (i.e., not cause unacceptable impacts to surface water, sediments, or ecosystems that should not be allowed to continue until a final remedy decision can be made and implemented)?

Answer:

List Reference Document(s):

Insufficient Data/No ←

No →

Yes ↓

Step 6 Will ground water monitoring/measurement data (and surface water/sediment/ecological data as necessary) be collected in the future to verify that contaminated ground water has remained within the horizontal (or vertical, as necessary) dimensions of the "existing area" of contaminated ground water?

Answer:

List Reference Document(s):

Insufficient Data/No ←

No →

Yes ↓

Insufficient Data to Determine Contaminated Ground Water Migration Under Control Status

Contaminated Ground Water Migration Under Control

Contaminated Ground Water Migration Not Under Control

Remedial Project Manager: DEMAREE COLLIER	Date Completed
	11-30-06

-1.IS

SOURCE: CERCLIS

US EPA, SUPERFUND PROGRAM
LONG-TERM HUMAN HEALTH PROTECTION WORKSHEET

RUN TIME: 2/24/11 12:24 PM

Site Name: **MATTHIESSEN AND HEGELER ZINC COMPANY** EPA ID: **IL0000064782**

NPL Status: **Currently on the Final NPL**

Region: **05** Section: **SFD/RRB#1/RRS3: 090594401** Primary RPM: **COLLIER, DEMAREE**

HE Survey Status: ~~**Insufficient Data to Determine Human Exposure Control Status**~~ NOT UNDER CONTROL

HE Estimated Control Date: **3/31/2011** LTHHP Estimated Control Date: **9/30/2025** HE Last Review Date: **12/20/2010** RPM Certified: **Yes**

Justification Type: _____ Justification Date: _____

Justification Text: If site status has changed, please enter a justification as to why the status has changed:

~~**Unknown-Early stage of RI.**~~

Please see attached - also forwarded by e.mail

Definition: The Long-Term Human Health Protection EI documents the progress achieved towards providing long-term human health protection by measuring the incremental progress achieved in controlling unacceptable human exposures at a site.

Step 1: Is there sufficient known and reliable information to make an evaluation on human exposure at this site?

Answer: ~~**No**~~ YES

SDMS Number(s):

List Reference Document(s): DRAFT RI REPORT
DRAFT Risk Assessment Report

No → Insufficient Data to Determine Human Exposure Control Status

Yes ↓

Step 2: Have all long-term human exposure-related cleanup goals been met for the entire site?

Answer: NO

SDMS Number(s):

List Reference Document(s):

Same as above

Yes → Long-Term Human Health Protection Achieved

No ↓

Step 3: Are there complete human exposure pathways between contaminated groundwater, soil surface water, sediment, or air media and human receptors such that exposures can be reasonably expected under current conditions?

Answer: YES

SDMS Number(s):

List Reference Document(s):

Same as above

No ←

Yes ↓

Step 4: Are the actual or reasonably expected human exposures associated with the complete pathways identified in Step 3 within acceptable limits under current conditions?

Answer: NO

SDMS Number(s):

List Reference Document(s):

No → Current Human Exposures Not Controlled

(continued on next page)

Yes ↓

(continued from previous page)

Step 5: Is the site Construction Complete, is the remedy operating as intended, and are engineering and institutional controls (if required), in place and effective?

Answer:

SDMS Number(s):

List Reference Document(s):

No → Current Human Exposures Controlled

Yes → Current Human Exposure Controlled and Protective Remedy in Place

Step 6: Are there continuing exposures at the site? Answer Yes only if EPA (or a state or PRP) has exhausted all response actions and legal authorities to prevent unacceptable human exposure, yet exposures continue due to a refusal by the property owner(s) to participate in the remedy (e.g., refusal to accept a municipal water supply hookup) AND the region wishes to exercise its discretion to classify this site as Human Exposure Under Control, consistent with the requirements laid out in the Superfund Environmental Indicators Guidance (OSWER 9285.02, March 2008, pages 4-10 and 4-11).

Answer:

Exposure Pathway Description

If Human Exposure is NOT under control, please describe the exposure pathway.

☑ Approved by Headquarters Environmental Coordinator

Unofficial

There is insufficient information to determine the site-wide Human Exposure Control status at the Matthiessen and Hegeler Zinc Company Superfund Site. The site was used for a variety of industrial activities including mining and smelting. Metals contamination of soils and nearby water bodies is expected to be the primary risk. Exposure pathways include possible trespassers on the site as well as nearby off-site residents, who may be exposed to soil contamination. The site is fenced except along the Vermillion River. Remedial Investigation/Feasibility Study (RI/FS) sampling began in July 2007, with a PRP conducting the work on a portion of the Site (including the Little Vermillion River) and U.S. EPA conducting the investigation on the remaining part of the Site. U.S. EPA also completed some residential soil screening around the Site for contaminants that may have migrated off-site and into residential yards. Two follow-up data gap sampling efforts in the residential area were conducted in 2009 and early 2010 to conclude the final field work at the site. Initial results have shown relatively low levels of metals contamination in the residential area. Once the risk assessment is finalized there should be sufficient information to make some conclusions regarding the human exposure control status at the site.

See attached

Official

There is insufficient information to determine the site-wide Human Exposure Control status at the Matthiessen and Hegeler Zinc Company Superfund Site. The site was used for a variety of industrial activities including mining and smelting. Metals contamination of soils and nearby water bodies is expected to be the primary risk. Exposure pathways include possible trespassers on the site as well as nearby off-site residents, who may be exposed to soil contamination. The site is fenced except along the Vermillion River. Remedial Investigation/Feasibility Study (RI/FS) sampling began in July 2007, with a PRP conducting the work on a portion of the Site (including the Little Vermillion River) and U.S. EPA conducting the investigation on the remaining part of the Site. U.S. EPA also completed some residential soil screening around the Site for contaminants that may have migrated off-site and into residential yards. Two follow-up data gap sampling efforts in the residential area were conducted in 2009 and early 2010 to conclude the final field work at the site. Initial results have shown relatively low levels of metals contamination in the residential area. Once the risk assessment is finalized there should be sufficient information to make some conclusions regarding the human exposure control status at the site.

See attached

Approvals (Initial and Date)

RPM	Section Chief	Technical Review	Branch Chief	IMC	Data Entry
2-25-11	2/25/11	3/14/11			3/16/11